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JOINT FIRES IN SUPPORT OF LARGE-SCALE COMBAT OPERATIONS (LSCO) USING THE LUZON CAMPAIGN AS A CASE STUDY

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by

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Biography

COL Thomas G. Wilson, JR is assigned to the Air War College, Air University, Maxwell Air Force Base, Alabama. He was commissioned a Second Lieutenant of Field Artillery in 1996 from the Reserve Officer Training Corps (ROTC) program at The Citadel in Charleston, South Carolina. He graduated with a Bachelor of Science degree, majoring in Physical Education.

In twenty-three years of Army service, he has served on three deployments to Iraq; two tours to Korea; two tours to Germany and served in a variety of command and staff positions. From May 2003 to July 2004, he deployed to Iraq as a Battery Commander with 1st Armored Division. He returned to Iraq in 2009 as a Division Maneuver Planner with 1st Cavalry Division. He later served as a Battalion Operations Officer and Battalion Executive Officer from 2010-2012 with a tour in Iraq in 2011. He served as the Brigade Executive Officer and Brigade Deputy Commander for 120th Infantry Brigade, First Army from 2012-2015. Colonel Wilson commanded the 3rd Battalion, 314th Field Artillery from 2015 to 2017. From 2017-2019, Colonel Wilson served as a Joint Faculty Member with the Department of Airpower, Air Command and Staff College at Maxwell AFB.

In addition to his undergraduate education at The Citadel, Colonel Wilson graduated from Kansas State University with a Master of Science in Adult Education in 2008. Also, in 2009, he earned a Masters of Military Art and Science from the United States Army Command and General Staff College, School of Advanced Military Studies (SAMS), at Fort Leavenworth, Kansas. He is also a graduate of the Field Artillery Officer Basic Course, Field Artillery Captains' Career Course, Command and General Staff College, and the School of Advanced Military Studies.

Abstract

After two decades of COIN operations, the Army has shifted focus to near peer competition. The most likely course of action is the US will fight small wars or counterinsurgencies, while the most dangerous course of action is the US will fight a Large-Scale Combat Operation against a near peer competitor such as Russia or China. The reason Large-Scale Combat Operations are important is because state survival is at stake. The Joint Fires community plays an integral part in Large Scale Combat Operations by shaping at all three levels of war: tactical, operational, and strategic. Joint Fires in support of Large-Scale Combat Operations is worth studying since the Joint Fires community is learning how to do this again after two decades of COIN. Studying the Luzon Campaign, which has been largely forgotten from World War II is a perfect case study to highlight lessons learned as well as tactics, techniques, and procedures the US Army used in the Joint Fires enterprise during what became the second largest land campaign in World War II. By studying the shaping campaign prior to the Lingayen Gulf landings on Luzon, one can gain several lessons regarding command and control of joint forces and the complexity of a shaping campaign that set the conditions for the successful Sixth Army landings on Luzon. The second part of the PSP focuses on the "Flying Column". By studying this joint combined arms maneuver, the importance of airpower and how you communicate and control it comes to light.

Introduction

After two decades of counter-insurgency (COIN) operations the Army has shifted its focus to near peer competition.[1] Although the most likely course of action is the United States (US) will fight small wars or counterinsurgencies, the most dangerous course of action is the US will fight a Large-Scale Combat Operation (LSCO) against a near peer competitor such as Russia or China. This is based off the multitude of limited wars fought by the US since the end of World War Two. LSCO is nevertheless important, because state survival is at stake; thus by its very nature the US cannot lose a LSCO. The Joint Fires community plays an integral part in LSCO by conducting shaping operations at all three levels of war: strategic, operational, and tactical. It also enables combined arms maneuver. Studying the Luzon Campaign of 1945 from the World War Two, which has been largely ignored, is a perfect case study to highlight lessons learned and tactics, techniques, and procedures the Joint Fires enterprise employed during what became the second largest land campaign in World War Two.

By studying aspects of the Luzon Campaign of 1945, such as shaping operations for the Lingayen Gulf landing (forcible entry operation) on 9 January 1945 and the "Flying Column's" combined arms maneuver to Manila from 1-3 February 1945, the Joint Fires enterprise can learn valuable lessons such as the need to establish formal command relationships when conducting shaping operations as opposed to the method of "cooperation" between strategic leaders, the need to conduct air interdiction against enemy airfields and transportation networks prior to a forcible entry operation, and the importance of airpower in conducting successful combined arms maneuver. This is not a story about airpower, but a story of how airpower conducted shaping operations and how it enabled combined arms maneuver during the First Cavalry Division's rapid movement to Manila.

Thesis

The Luzon Campaign of 1945 demonstrated several features for LSCO and Joint Fires such as the need to establish formal command relationships when conducting shaping operations as opposed to the method of "cooperation" between strategic leaders, the need to conduct air interdiction against enemy airfields and transportation networks prior to a forcible entry operation, and the vital role airpower plays in the execution of successful combined arms maneuver.

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Luzon

Shaping Operations

According to *Sixth United States Army, Report of the Luzon Campaign: 9 January 1945-30 June 1945, Volume 1,* Sixth Army's missions were (1) to land in the Lingayen- Demortis- San Fernando (La Union) areas of Luzon; (2) to establish a base of operations, including facilities for uninterrupted naval and air operations; (3) to advance southward and seize the Central- Plain-Manila area; and (4) by subsequent operations, as directed by General Headquarters, Southwest Pacific Area, to establish control over the remainder of Luzon.[2] Operationally, Luzon would provide air and naval bases, and a staging ground for the proposed invasion of Japan. The Luzon campaign was the second largest for the U.S. Army in World War Two only behind Northern France in scale and scope. The amphibious landing at Lingayen Gulf was the largest in the Pacific war and the second largest in World War Two. Perhaps even more surprising to the World War Two historian is that the Luzon campaign was the largest joint campaign of the Pacific in World War Two.[3] The Japanese defended Luzon with 270,000 troops, while Sixth Army landed two Corps abreast, four infantry divisions, on S-Day (9 January 1945). Sixth Army's strength would eventually top out at 280,000 (Eleven Army Divisions) thus making Luzon the largest campaign of the Pacific war.[4]

Kamikazes were the primary threat against the invasion fleet and provided the need to shape, via air interdiction, every airfield that could affect the Lingayen Gulf landings. Shaping operations played a major role in enabling an initially outnumbered ground force. JC Slessor says in his book, *Air Power and Armies,* that "The object of an army in a land campaign is to defeat the enemy's army; that of the air force contingent in the field is to assist and cooperate with the army in the defeat of the enemy's army, and of such air forces as may be co-operating

with it." [5] Slessor is referring to shaping operations and interdiction missions, which is the primary mission of the joint fires community. Shaping joint fires are critical for forcible entry operations in warfare. By studying the shaping operations for the Allied Lingayen landing (forcible entry operation) in January 1945 for the Luzon campaign, the Joint Fire Supporter will gain valuable lessons that are applicable for Large Scale Combat Operations (LSCO). By examining the amphibious assault against Luzon, three main points stand out. First, multi-domain coordination and cooperation at the strategic level between General Douglas MacArthur, General Henry "Hap" Arnold, and Admiral Chester Nimitz, enabled the successful shaping operation in support of the Lingayen landing. Second, the Army Air Forces (AAF) conducted textbook shaping operations by conducting an air interdiction campaign against airfields and transportation networks, while simultaneously supporting Sixth Army ground forces and Seventh Fleet naval forces. Finally, lessons learned, such as the need for unity of command and the conduct of shaping operations at the strategic and operational levels in support of joint forcible entry operations are, still applicable to today's Joint Fire Supporter.

Shaping operations, through joint fires, provides the modern-day operational commander the ability to create favorable conditions for his or her maneuver forces during forcible entry operations. Army Field Manual 3-0, *Operations,* defines shaping operations as "an operation that establishes conditions for the decisive operation through effects on the enemy, other actors, and the terrain." [6] It also says, "In the context of large-scale combat operations, a campaign is a series of related major operations achieving strategic and operational objectives within a given time and space."[7] Divisions and Corps are the formation echelons that Large Scale Combat Operations are centered on because they are manned and equipped to enable their subordinate organizations.[8] Forcible entry operations always involve two or more services, require detailed

planning, and are very complex. The Lingayen landings on 9 January 1945 involved the Army, Navy, Army Air Forces, and the Marine Corps. According to Field Manual 3-0, *Operations*, "Army forces are heavily dependent upon the joint force for fires and information collection in the deep area."[9] During the Lingayen landings, the Sixth Army's experience demonstrates the important conclusions of Field Manual 3-0, *Operations*.

Though the Japanese Air Force took significant losses in the Battle of Leyte, the SWPA Headquarters believed the Japanese Air Force could still be a major factor by attacking the Lingayen invasion fleet while in route to Luzon and also during landing operations. According to the official U.S. Army historian Robert Ross Smith in his *Triumph in the Philippines,* General MacArthur possessed enough land-based aircraft to conduct shaping operations prior to S-Day (9 January 1945), but he could not deploy enough land-based aircraft (5th Air Force and 13th Air Force) at airfields within range of Luzon, the southern Philippines, Formosa, and other Japanese air base areas to interdict the Japanese Air Force.[10] This forced General MacArthur and his planners to go outside of SWPA to get more resources for the operational fires needed for this massive shaping operation that was forming for the Lingayen landings. However, the strategic leaders in the Pacific theater had to work out differences and service parochialisms before shaping operations could take place in support of the Luzon landing.

Multi-domain coordination and cooperation at the strategic level between General MacArthur, General Arnold, Admiral Nimitz, and Admiral "Bull" Halsey enabled the successful shaping operation in support of the Lingayen landing. There was not a unified commander for the Pacific Ocean Areas like General Dwight D. Eisenhower was for the European theater. General MacArthur commanded the Southwest Pacific (SWPA) forces and Admiral Nimitz commanded the Pacific Ocean Areas (POA) operating primarily in the Central Pacific. Also,

General “Hap” Arnold, commander of the Army Air Forces, commanded the US Strategic Air Forces, which in the Pacific theater was the XX Bomber Command located in China, and the XXI Bomber Command located in the Marianas. Both the XX and XXI Bomber Commands were composed primarily of the B-29 bomber which was used for strategic bombing, typically against the Japanese mainland.

At this point it was going to take other Army Air Forces that MacArthur did not own to eliminate the risk of enemy interference by air at Lingayen.[11] General MacArthur reached out to the Joint Chiefs of Staff, more specifically to General Arnold, to get his strategic air force assets in the Pacific theater to conduct shaping operations in support of the Lingayen landings. General MacArthur wanted General Arnold’s strategic bombers to neutralize Japanese airfields and ports on Formosa and the Ryukyus, however Arnold did not see airfields as a “strategic” target and chose to bomb aircraft depots and factories in Japan and port facilities on the northern side of Formosa prior to and after the Lingayen forcible entry operations.[12] The purpose of Arnold’s shaping operations was to prevent the Japanese from sending any aircraft southward from the home islands and to prevent any reinforcement ship convoys to depart northern Formosa.[13] Arnold’s strategic bombers were also going to conduct reconnaissance and limited bombing from Singapore to Camranh Bay because of reports of a Japanese fleet moving towards the Philippines.[14] Arnold also tasked the Fourteenth Air Force, out of China, “to conduct searches over Formosa and the South China Sea and bomb Japanese air and port installations along the China coast.”[15]

The coordination between MacArthur and Arnold was based on cooperation and no formal command relationship. Despite the Army Air Forces’ goal of using the strategic bombers as their niche for their quest for independence from the Army, Arnold was able to put aside any

service parochialisms and saw the need to support MacArthur's forces by conducting what amounts to a strategic shaping operation in support of the Lingayen landings. Arnold's operations prevented any interdiction from the Japanese home islands by aircraft or troop convoys via the sea domain from Formosa. Arnold's efforts were based on his willingness to aid MacArthur's landings at Lingayen Gulf, but the fact that these two officers cooperated should be approached with caution. Arnold after all could have decided for his own reasons not to support MacArthur's operations. Thus, more is needed to make joint action successful. The relationship should have been made formal from an order from the Joint Chiefs and not done by a "hand shake."

Eisenhower's command arrangement provides a striking contrast. Eisenhower prior to the Normandy landings threatened resignation because strategic air forces in the European theater did not want to conduct any interdiction or shaping operations in France prior to the Normandy landings. Royal Air Forces' Bomber Command and the Eighth Air Force eventually supported Eisenhower and made a tremendous impact by bombing the transportation networks throughout northern France. Luckily, the strategic air force shaping operation for the Luzon campaign went off without a hitch even though there was no formal command relationship. In the end it has been proven in World War II that strategic air forces can conduct successful operational fires in support of forcible entry operations. Even though General Arnold and his strategic air forces conducted shaping operations via air interdiction, there was still not enough assets to cover all the Japanese airfields and ports that could affect the Lingayen landings.

Admiral Nimitz and General MacArthur put aside their rivalry and mutually supported each other during the fight in the Pacific. At no place was this more evident than the forcible entry operation conducted by SWPA at the Lingayen landings on Luzon. Army Air Forces under

General George Kenney, MacArthur's airman, could not deploy enough land-based fighter aircraft from the 5th and 13th Air Forces to conduct all the shaping operations needed to pull off a successful forcible entry operation in the Lingayen area of Luzon. The assets were there but the airfields within range of Luzon were not.[16] General MacArthur would rely on his old rival in the Pacific, Admiral Nimitz, to provide assets needed to interdict Japanese airfields within range of Luzon.[17] Japanese aircraft could affect the Lingayen landings from the southern Philippines, Formosa, and Luzon.[18] Admiral Nimitz tasked Admiral Halsey's Third Fleet, to support SWPA. Halsey's Third Fleet mission was to "destroy Japanese air and naval forces in the Ryukyus, Formosa, south China coast, and northern Luzon areas before the Lingayen assault, and to prevent Japanese air and naval interference with the assault."[19] Halsey was also responsible for supporting the massive invasion fleet (over 1000 ships) by providing air cover, interdiction, and close air support from 9 January 1945 (S Day) to 17 January 1945 (S +9). At S+9 it was anticipated that General Kenney would have enough airfields built to be in range of Lingayen to support Sixth Army. As per standard practice in the Pacific theater, the Third Fleet still fell under Nimitz, but was "lent" to SWPA and MacArthur. As with General Arnold's strategic air forces, all the coordination conducted with Third Fleet was based on cooperation and no official task organization change.[20] Admiral Nimitz also provided his strategic bombers from Seventh Air Force, based at Palau, to support General Kenney via a "handshake" enabling Kenney to plan interdiction missions targeting Luzon.[21]

The Far East Air Force (FEAF), commanded by General Kenney, under SWPA executed textbook shaping operations by conducting an air interdiction campaign while simultaneously supporting Sixth Army ground forces and Seventh Fleet naval forces by gaining and maintaining air superiority. According to Robert Ross Smith, "the Allied Air Forces' principal missions

included striking southern Luzon before the assault in conjunction with Third Fleet (commanded by Admiral Halsey) carrier operations to the north, helping CVE's (escort carriers) to protect assault convoys, augmenting CVE-based aircraft efforts to stop any Japanese attempts to move troops toward Lingayen Gulf by land or sea, bombing Japanese air bases and other installations in the southern Philippines and the Indies, helping guerrilla saboteurs disrupt Japanese communications on Luzon, and, finally, making reconnaissance and photographic missions."[22] As stated earlier General Kenney's Allied Air Forces would assume support of Sixth Army ground operations at S+9 once enough airstrips were built in the Lingayen area.[23]

Joint shaping operations present a problem when there is not a unified commander and action between services is done by cooperation. The air plan according to Robert Ross Smith, "Entailed the efforts of nearly fifteen major air commands, both Army and Navy, directing the activities of both carrier-based and land-based aircraft, operating in separate theaters and across theater boundaries, and reporting to higher headquarters through widely differing channels." [24] This goes to show the herculean shaping effort involved in the Lingayen landings, and one of the issues that needed to be deconflicted was airspace. SWPA's own, Admiral Thomas Kinkaid, Seventh Fleet Commander, was in charge of the invasion armada and the force until Sixth Army's Commander, General Walter Krueger established his headquarters on the beach head. Admiral Kinkaid's aircraft were to provide close air support for the ground troops conducting the invasion. Kenney's Allied Air Force, mainly the 5th Air Force, would remain south of Lingayen Gulf and attack the Japanese airfields and the transportation networks around Clark Field and Manila in order to isolate the landing area and not interfere with any Navy operations.[25] Aircraft from different services were allowed to cross into each other's boundaries, but only with concurrence from the commander responsible for that area.[26] This made coordination difficult

and hindered the pilots ability to conduct dynamic targeting due to not knowing the situation on the ground in another unit's area of operations.

Shaping operations enabled the joint forcible entry operation at Lingayen Gulf. When the Allies began their air attacks to start shaping operations for the Lingayen Gulf invasion in October 1944, and from when the invasion began on 9 January 1945 it was estimated that over 1,505 Japanese aircraft were destroyed on the ground throughout the Philippines.[27] Of these, 600 of the 1,505 aircraft were destroyed on or over Luzon from 13 December 1944 to 13 January 1945.[28]At the start of the invasion on 9 January 1945, the Japanese only possessed 150 aircraft that were dispersed over fifty airfields.[29] Despite their great losses, the remaining aircraft were more than enough aircraft to contest the invasion. The biggest threat came from kamikaze attacks on the Seventh Fleet as they were conducting the amphibious landing.

Conducting air interdiction missions against Japanese airfields throughout South China, Indochina, Formosa, the Ryukyus, and the Philippines set conditions for a successful amphibious landing, however the air interdiction campaign against the transportation network in Luzon was equally as effective. The air interdiction campaign against the transportation network was conducted to deny the Japanese army freedom of maneuver in order to isolate the enemy forces in vicinity of the beachhead. While the escort carrier planes of Seventh Fleet conducted close air support for the amphibious assault, Fifth Air Force, primarily from the island of Mindoro, conducted the air interdiction campaign against the transportation networks.

From 9 January 1945 to 16 January 1945 the air interdiction campaign against the transportation networks served its purpose and isolated the enemy in the Lingayen Gulf area. The battle damage assessment as reported by the AAF was impressive during this week. On 9 January 1945, fifteen key bridges were knocked out by Fifth Air Force thus interdicting lines of

communications to the beach area. Also 79 locomotives were destroyed, as well as 424 railway cars, 468 military trucks, and 66 military staff cars.[30] This was over half of the pre war locomotive stocks on Luzon.[31] Shaping operations conducted via air interdiction against the transportation networks proved decisive. The enemy was unable to reinforce the beachhead, and Sixth Army expanded the beachhead thirty miles deep and thirty miles wide.[32]

Airpower enabling combined arms maneuver

While shaping operations from Joint Fires enabled the forcible entry at Lingayen Gulf, they also played the major role in the combined arms maneuver to Manila. Manila was the strategic objective for Southwest Pacific Area forces, commanded by General Douglas MacArthur. MacArthur was obsessed with taking Manila. He already planned his victory parade and wanted it taken before his birthday on January 26.[33] MacArthur was disappointed in how cautiously his Sixth Army, commanded by General Walter Krueger, was moving. Krueger, in his mind, had every right to be cautious as he still did not know how the Japanese were going to defend Luzon. He did not want to take any unnecessary risks until he had a better idea of the enemy disposition because he did not want to get surprised by a counterattack by the Japanese Second Armored Division.[34] The caution displayed by Sixth Army's commander was driving MacArthur mad as he was also concerned about 3,750 internees being held by the Japanese at Santo Tomas University (turned into a prison in 1942 by the Japanese) as he feared they were going to be executed if he and his forces did not liberate them. Santo Tomas University was located in the northern part of Manila. MacArthur feared that time was running out and he needed to get to Manila fast.

As the First Cavalry Division closed on its assembly areas at Guimba on 30 January, MacArthur skipped the Army and Corps echelons of command and met with the commander of

the First Cavalry Division, Major General Vernon Mudge. MacArthur, arguably, gave Mudge the most glorious order of the Luzon Campaign, "Go to Manila, Go around the Nips, bounce off the Nips, but go to Manila. Free the internees at Santo Tomas. Take Malacanan Palace and the Legislative Building."[35] Mudge would task organize elements of his brigades into three serials, the "Flying Columns". Each serial would have tanks, motorized infantry, field artillery, and cavalrymen. The "Flying Columns" were built for speed and possessed firepower. As General Krueger said, "It was expected that the flying column would catch the enemy off balance and permit us to seize Manila with minimum damage to the city."[36] Catching the enemy off balance played an integral role in the "Flying Column" maneuver to Manila, and feeds into the concept of dislocation.

As B.H. Liddell Hart talks in his book *Strategy* about dislocation being "the aim of strategy; its sequel may be either the enemy's dissolution or his easier disruption in battle."[37] Hart discusses how strategic dislocation is produced in a physical and logistical sense, "(a) upsets the enemy's dispositions and, by compelling a sudden 'change in front', dislocates the distribution and organization of his forces; (b) separates his forces; (c) endangers his supplies; (d) menaces the route or routes by which he could retreat in case of need and re-establish himself in his base or homeland."[38] Sixth Army's rapid movement would "upset the enemy's dispositions" and lines of communications causing psychological dislocation to the Japanese leadership. As Liddell Hart continues, "Dislocation is the result of the impression on the commander's mind of the physical effects which we have listed. The impression is strongly accentuated if his realization of his being at a disadvantage is sudden and if feels that he is unable to counter the enemy's move. Psychological dislocation fundamentally springs from this sense of being trapped."[39] MacArthur talks about disrupting the enemy disposition and

psychologically dislocating Yamashita: “The speed of our advance gave the enemy little and, in some cases, no time to utilize their well-prepared defense positions. As General Yamashita sought to bring his troops up from the south, where they had been decoyed by the Mindoro operation, many units were caught before their transportation movement could be completed or while in the process of regroupment. Contact between field units and headquarters was constantly broken, and some elements were cut off entirely.”[40] The “Flying Column” movement of 100 miles in 66 hours played a part in this.[41] The Japanese were not expecting a movement this quick towards Manila as they originally prepared for an invasion south of Manila, not north in the Lingayen Gulf.

The “Flying Columns” served as an example of what combined arms maneuver can do when under the umbrella of air superiority to dislocate the enemy. Robert Ross Smith, in *Triumph in the Philippines,* says, “The Luzon Campaign differed from others of the Pacific war in that it alone provided opportunity for the employment of mass and maneuver on a scale even approaching that common to the European and Mediterranean theaters.”[42] Mass and maneuver did not happen much in the Pacific theater because of terrain limitations; however due to the central plain being conducive for mechanized warfare between Lingayen Gulf and Manila, it was ideal for combined arms maneuver. The “Flying Column” is a textbook example of combined arms maneuver. “Flying Columns” were combined arms teams (Tanks, Cavalry, Field Artillery, Engineers), which were really heavily reinforced squadrons of cavalry.[43] Combined arms maneuver is defined as the application of the element of combat power in unified action to defeat enemy ground forces; to seize, occupy, and defend land areas; and to achieve physical, temporal, and psychological advantages over the enemy to seize and exploit the initiative.[44]

Recently, Captain James Villanueva examined the relationship between firepower and combined maneuver in the "Flying Columns" move south to Manila. In his essay titled, "Field Artillery and Flying Columns: Combined Arms Maneuver in the Advance on and Seizure of Manila, 1945", which was included in the Army University's publication *Bringing Order to Chaos: Historical Case Studies of Combined Arms Maneuver in Large-Scale Combat Operations.*[45] Villanueva argues that task organizing into "adaptive combined arms teams" with artillery, tank and tank destroyer battalions to infantry units were enough to defeat the challenges on the fast movement to Manila.[46] However, Villanueva omits one important aspect of the Sixth Army's "Flying Column": airpower. This lesson of combined arms maneuver can't be incorporated into the joint community without airpower getting its proper recognition in enabling combined arms maneuver. While I do not disagree that combined arms provides an advantage in a close fight, the "Flying Columns" of the 1st Cavalry Division would not have maneuvered at the rapid pace and distanced covered in the three day movement if it was not for airpower providing reconnaissance, protecting the left flank and providing close air support over their columns for three days.

Reconnaissance, provided by airpower, was a critical for the "Flying Columns." According to the *Historical Report of the First Cavalry Division in the Luzon Campaign 27 JAN 45 – 30 JUNE 1945*, "Without a chance for preliminary reconnaissance of routes, with vague information concerning the enemy, but with indestructible optimism and supreme faith in General Mudge, the troopers readied themselves to renew combat with the Japs."[47] Because of the urgency and the flash to bang from receipt of mission until the "Flying Columns" would cross the line of departure ground reconnaissance was not going to be executed. The unit was going in blind. General Eichelberger, Eighth Army Commander, said, on 29 January 1945, "We

still do not know whether the Japanese are going to put up any resistance to the capture of Manila." [48]A key element of combined arms maneuver is the ability to conduct reconnaissance so you can avoid the enemy, or gain and maintain contact with the enemy. With the "Flying Columns" relying on maneuver and speed to get to Manila, the First Cavalry Division's left flank would be exposed on the audacious movement.

The 24th and 32nd Marine Air Groups (MAG) would get the assignment of protecting the left flank of the "Flying Columns." Both Marine air units were task organized under the Army Air Forces 308th Bombardment Wing. The 308th Bombardment Wing gave the Marine air units the following orders, "Provide an 'air alert' of nine planes from dawn to dusk over the First Cavalry Division."[49] However simple the 308th's orders to the 24th and 32nd MAG sounded, the following were their primary tasks: "provide nine dive bombers to stay overhead at all times. They would scout out Japanese positions and troop concentrations to enable the column to avoid them. If necessary, the SBDs (scout bomb divers) would bomb the enemy's strongholds."[50] The Marines were ideal for this mission because they were willing to make close air support work and did not care that they were supporting Army ground units. A task of providing an "air alert" for the "Flying Columns" would imply that the air unit would provide close air support. Since the "Flying Columns" were going to maneuver very rapidly toward Santo Tomas University an "air alert" system was the preferred method to support the mobile force. The Marine airpower on "air alert" would essentially take the place of the 1st Cavalry Division's artillery which was not as mobile and could not set up and provide the desired support needed for the rapid mobile force.[51] MAG 24's Group Operation Officer, Lieutenant Colonel Keith B. McCutcheon spoke concerning how Marine pilots felt about close air support and lends validity on why they were the correct choice to protect the left flank of the "Flying Columns": "Close Air Support is an

additional weapon to be employed at the discretion of the ground commander. He may employ it against targets that cannot be reached by other weapons or in conjunction with the ground weapons in a coordinated attack. It should be immediately available and should be carried out with deliberation and accuracy and in coordination with other assigned units."[52]

Marine airpower was going to get a chance to test an important part of their doctrine and it was ideally suited to support the combined arms maneuver of the "Flying Columns." This joint maneuver between the Army ground forces with a sister service providing air support was not unusual for the Pacific theater of operations, but it was not a common practice. According to the official Marine historian, the Marines were set to prove the following: "aviation as an immediately available, additional weapon at the hands of an infantry commander, able to function with the highest degree of coordination and accuracy under on-the-spot direction of a front-line observer."[53] The reason airpower was effective during the "Flying Columns" combined arms maneuver was the way it was controlled.

CAS employment during combined arms maneuver is a combat multiplier. The method of control and attitude for airpower was different between the Army Air Forces (AAF) and the Marines. The AAF practiced centralized control where the lowest echelon to receive a Support Air Party (SAP) was normally at the division level. This meant that communications to the aircraft providing close air support (CAS) would go from the infantry Company to the Battalion to the Brigade then to the Division, then to Corps, next to the Army and finally to the 308th Bomb Wing, and finally to the aircraft delivering the CAS.[54] This method was not effective and often made dynamic missions nearly impossible and made deliberate missions hard as well when the target moved to a different location which was visible only to the ground unit. Changes to the

target location could not be relayed in a timely manner with the AAF method of centralized control.

Marine Corps CAS was more effective than AAF CAS during the Luzon Campaign of 1945. Robert Sherrod, author of *History of Marine Corps Aviation in World War II*, sheds light on the AAF's thoughts on CAS from Army Field Manual 100-20 as Army airmen explained: "In the zone of contact, missions against hostile units are most difficult to control, are most expensive, and are, in general, least effective. Targets are small, well-dispersed, and difficult to locate. In addition, there is always a considerable chance of striking friendly forces…Only at critical times are contact zone missions profitable."[55] This passage demonstrates the AAF was not interested in making CAS work. This was a very scathing comment regarding CAS and was not indicative of the Marine attitude towards it.

Marine airpower operated in a very decentralized manner. Different than the AAF's SAPs, the Marines employed Air Liaison Parties (ALP) down to the lowest level echelon of the ground units that possessed a commander. Usually at the company or battalion level. Another major difference between the AAF SAPs and the Marine ALPs was the aircraft method of control for CAS and communication. ALPs were located with the ground commander. The ALPs consisted of a jeep with radios to talk to the plane and the SAPs at division headquarters. Major Boggs in his essay, *Marine Aviation in the Philippines,* says that ALPs, "could call into instant action their air-borne weapons, already in the vicinity. By a variety of means (radio, panels, pyrotechnics, flashing lights, smoke, etc.), ALP's would provide ground-to-air briefing of targets and indicate friendly troop disposition. The ALP's then would make certain, by observing a dummy run by the flight leader, correctness of the pilot's intended target, and during the attack, alter instantaneously any errors in subsequent runs."[56] These techniques developed by the

Marines were tried and proven for CAS and proved effective during the "Flying Column's" march to Manila. Air support would be used effectively in close quarters to ground forces because of the method of control enabled by the ALPs. Furthermore, the communications link furnished from the ALPs, in proximity to the serial commanders of the "Flying Columns," enabled quick decisions based on the information provided by the aircraft conducting the air alert.

Further evidence that the "Flying Columns" of the First Cavalry Division preferred the Marine Corps ALPs over the AAF SLPs was demonstrated when General Chase chose to ride in the Marine ALP jeep that accompanied him over the AAF SLP. The Marine ALPs consisted of two radio jeeps and a radio truck, consisting of three officers and four enlisted Marines. They provided coverage for the three "Flying Columns." Unbeknownst to the Marines, the 308th Bombardment Wing, AAF provided for its coordination with ground forces "…a DUKW [amphibian truck] (complete with Filipino houseboy), a weapons carrier, a jeep, 27 men and two officers…but its equipment was such that it couldn't keep up with the advance or semiexposed positions. Besides, for air support through that channel, requests would have to be forwarded and approved first by Division, then Corps, then Army and finally by 308th Bomb Wing."[57] Chase picked the Marine ALP to stay next to his vehicle during the entire movement. He often rode shotgun in the Marine jeep during the movement so he could monitor the reconnaissance reports coming in from the Marine aircraft flying in front of the column. The AAF vehicle was a nonfactor during the movement and was too slow to keep up with the "Flying Columns."

Airpower's contribution to the "Flying Columns" would begin shortly after midnight on 1 February 1945 in the town of Guimba (Assembly Area, First Cavalry Division). Nine SBD dive bombers would provide air alert and protect the left flank of the "Flying Columns" from daylight

to dusk, while two Marine ALPs consisting of two jeeps, one radio truck, and seven Marines would be with the three "Flying Columns."[58] These were the first Marine ALPs to operate with Army infantry on Luzon. General Chase, 1st Brigade and 1st Serial commander, often rode in one of the ALP jeeps because of the communications provided. Chase could listen and talk to the SBDs in the air, getting speedy air reconnaissance reports to enhance his decision making about an unknown enemy. The nine SBDs, under the control of their ALPs, "were always….droning overhead in a lazy circle, ready to pounce downward to stop any threat to the on-rushing mechanized cavalrymen."[59] The loud droning noises of the SBDs scared and fixed the enemy in place thus enabling the maneuver of the "Flying Columns." By 17 January 1945, complete air superiority was obtained by the Americans so daylight movement by the Japanese was minimal and definitively came to a halt when American airpower was in the sky. During the three day march to Manila, Marine airpower guarded the left flank of the "Flying Columns" searching an area 30 miles ahead and 20 miles behind advance ground patrols while reporting any Japanese maneuver that could interdict the movement or cut off the extended lines of communications (LOC).

Intelligence gained by Marine airpower while providing the air alert often proved useful for rear security forces as well. Because the "Flying Columns" movement was so rapid the LOCs were becoming extended with the potential for bypassed Japanese forces on the flanks to interdict the LOCs.[60] The SBDs passed this intelligence, anticipated Japanese movements, back to rear security forces so they could destroy the enemy.

Airpower is the key to enabling rapid combined arms maneuver by providing aerial ground route reconnaissance. Major Boggs describes how valuable airpower was to enabling the maneuver of the "Flying Columns", "cavalrymen in trucks and jeeps and tanks forged rapidly

southward, actually in three separate columns, down Luzon's Route 5 highway or over more primitive roads and even across paddy fields. Whenever possible, they swept around places of isolated enemy concentrations and faced their most time-consuming impediment at points where bridges lay demolished. Advance scouting by air of the many rivers which had to be crossed would disclose condition of bridges prior to arrival of the column and thereby often eliminate devious rerouting."[61] The author of the official First Cavalry Division history from World War Two states that, "Much of the success of the entire movement is credited to the superb air cover, flank protection, and reconnaissance provided by the Marine Air Groups 24 and 32. The First Cavalry's drive down through Central Luzon was the longest such operation ever made in the Southwest Pacific Area using only air cover for flank protection."[62]

Close air support proved extremely effective and enabled the "Flying Columns" not to be fixed or stopped by the enemy. Marine airpower built trust with the "Flying Columns" by not strafing friendly forces as the AAF had in the past, but by their precision and responsiveness when called upon by the ground commander. General Chase gave the Marine aviators high praise, writing: "I have never seen such, able, close and accurate air support as the Marine flyers are giving us."[63] One example on the first day of "air alert "operations, two flights of nine SBDs struck two separate towns (Angat and San Jose del Monte) along the route where the enemy concentrations were gathering. Both missions were successful as the "Flying Columns" did not get fixed.[64] Major Boggs reports on 2 February 1945, "Planes of VMSBs 133, 142 and 241 after taking-off on a prearranged assignment, were diverted by division-level ground control (SAP) to bomb and strafe San Isidro, a town within sight of the 'flying column.' (Three planes of the "air alert," then on station, received SAP permission to join the San Isidro attack.) All bombs fell within a specified area, only 200 by 300 yards in size, and Army observers reported "target left

in shambles." This was an example of the flexibility of airpower in support of combined arms maneuver. Aircraft were able to rapidly respond due to the communications network established by the ALP at battalion to the aircraft and to the SAP at division. Also, the accuracy of the SBDs proved effective and continued to build the trust needed in air ground integration.

Airpower did not necessarily have to attack targets with bombs. Their "dummy runs" on to the targets proved equally effective and kept the "Flying Columns" moving at a rapid pace. Dummy runs were conducted like a CAS drop except no ordinance was dropped. The enemy took cover because of the possibility that a bomb would be dropped on their position. Perhaps the biggest engagement encountered by the "Flying Columns" in route to Manila happened between Plaridel and Santa Maria where the first serial encountered a dug in Japanese infantry battalion on the high ground. According to the official First Cavalry Division Second World War history this enemy position was "capable of withstanding an entire division."[65] A costly and lengthy ground engagement seemed impending. The ALP, located with the serial commander, provided the SBDs on air alert a briefing in the air. Then according to First Cavalry Division history: "Here the dive bombers of MAG 32 made several strafing passes at the Japs without firing a shot, due to the proximity of friendly troops, and enabled the squadron to slug its way into the defensive position and rout the occupants."[66] This action by the air alert forces covering the left flank of the "Flying Columns" proved to be decisive in nature as it enabled the ground forces to overtake the Japanese positions as these dummy runs were conducted. The dummy runs kept the Japanese heads down while the American infantry advanced and overtook their positions. If the SBDs did not conduct their runs on the entrenched Japanese battalion there is a possibility the combined arms maneuver of the "Flying Columns" would have been halted for over 24 hours thus delaying the rescue of the internees and giving the Japanese more time to

blow bridges on the approach to Manila. General Mudge, commander of the First Cavalry Division, best described air powers contribution to his drive to Manila, “The Marine dive bomber pilots on Luzon are well qualified for the job they are doing, and I have the greatest confidence in their ability. On our drive to Manila, I depended solely on the Marines to protect my left flank from the air against possible Japanese counterattack. The job they turned in speaks for itself. We are here (Manila)…. The dive bombers of the First Marine Air Wing have kept the enemy on the run. They have kept him underground and enabled troops to move up with fewer casualties and with greater speed.”[67]

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Recommendations

Based on studying the shaping operations and combined arms maneuver of the Luzon Campaign of 1945, there are three lessons that the Joint Fire supporter can apply today. The first lesson is to formalize command and control relationships prior to beginning shaping operations. SWPA planners left no asset unturned in the military inventory to conduct shaping operations. These major shaping operations were all conducted under the guise of cooperation. The size and complexity of the Lingayen Gulf landings were the biggest in the Pacific theater. MacArthur's planners at SWPA realized the Japanese fighter planes provided the biggest threat. This required MacArthur to request assets outside his command, which he was granted. Although the Third Fleet from Admiral Nimitz, and the strategic bombers from General Hap Arnold supported the Lingayen Gulf landings MacArthur did not have any command authority over them thus violating the principal of war "unity of command." Nimitz and Arnold had to put aside any service parochialisms and "hope" everyone did what they were asked to do. This is not a good way to exercise command and control for a joint force. "Hope" is not a method or a course of action. In this instance there was one documented instance of fratricide where carrier aviation planes attacked Fifth Air Force planes in the air south of Lingayen Gulf. This action occurred on a boundary between naval and AAF aviation. Since neither element could communicate with each other and there was no unified commander or air commander, both elements perceived the other to be hostile and commenced to fighting each other. Even Robert Ross Smith noted in *Triumph in the Philippines* the command and control predicament between the joint force: "There can, however, be no evading the fact that the task of coordinating air, ground, and naval plans, and operations would have been considerably simplified had a different command arrangement existed in the Pacific."[68] MacArthur should have been given total control of the

assets that SWPA was receiving to conduct shaping operations for a designated period of time. Instead Admiral Nimitz was "scratching" MacArthur's back so he would receive MacArthur's support for potential operations in either Formosa or the Ryukyus. Hap Arnold's XX and XXI Bomber Commands initially bombed airplane factories in Japan instead of the airfields in Formosa that MacArthur wanted to attack prior and during the Lingayen Gulf landings. The strategic bomber's command arrangement should have reflected an operational or tactical control relationship, thus allowing SWPA to assign their missions. This would have fixed the "cooperation" problem and formalized the relationship. Also, leaders need to strive for unity of command in every operation and formalize command relationships when necessary. Cooperation does not fare well when operations are conducted over several theaters and service boundaries. Though unity of command is a very important lesson to learn so is the importance of strategic and operational shaping operations in support of joint forcible entry operations.

Secondly, the Joint Fire Supporter needs to take heed of Captain Villanueva's essay and not forget the omission of airpower in his lesson of combined arms maneuver. Also, the U.S. Army cannot forget airpower as it pivots from counterinsurgency operations to LSCO. It is important the entire story of the "Flying Columns" gets told not just the ground perspective as Villanueva does, but include airpower's importance in combined arms maneuver. The Joint Fire Supporter needs to plan shaping operations such as air interdiction against airfields and transportation networks during joint forcible entry operations. Shaping operations were very extensive in support of the Lingayen Gulf landings encompassing the breadth of the Pacific theater. Aircraft and ships in other theaters, reporting to different headquarters, encompassed most of this force. SWPA requested and used all assets available and interdicted airfields in Indochina, the south China coast, Formosa, Ryukyus, Philippines, and mainland Japan. The

transportation network in Luzon was interdicted by air as well with resounding success. This was the second big win for transportation network interdiction, with Allied landings in Normandy being the first in June 1944. The Lingayen landings would not have been successful without the shaping operations occurring. Well planned shaping operations, in the form of joint fires, supporting forcible entry operations in LSCO remains a critical factor in the success or failure of the operation.

The last major lesson is airpower allows rapid movement which leads to dislocation. Airpower can be used to protect the flanks of ground forces, conduct reconnaissance in support of combined arms maneuver, and provide air cover against ground threats. Flank protection and air cover against ground threat, provided by airpower, filled a void which combined arms maneuver could not cover in its mission set of a rapid advance along an unknown route and lack of friendly ground forces on its left flank. The aviation assets providing the protection need to be readily available thus a command relationship of direct support would be appropriate for aviation assets protecting the flank of a ground unit. Direct support is defined as a support relationship requiring a force to support another specific force and authorizing it to answer directly to the supported force's request for assistance.[69] Direct support facilitated decentralized control from the AAF. Having an ALP with the ground commander enabled quick and rapid movement. The ALP with direct control and links to the aircraft provided the ground commander with a "view" from the third dimension.

In particular, reconnaissance provided by airpower supporting the "Flying Columns" proved more valuable than dropping bombs. To conduct a rapid combined arms maneuver over 100 miles in 66 hours towards Manila requires excellent reconnaissance. Reconnaissance in this situation was provided by nine SBDs. Due to MacArthur telling Mudge to get to Manila as fast

as he can, thorough ground reconnaissance was not conducted. Mudge relied on his dedicated aircraft to let his “Flying Columns” know when the route ahead had enemy strongpoints or when blockades were blocking the route, or when bridges were already blown or when they could be captured intact. This information was all provided by airpower. Without this information, Mudge and the First Cavalry Division would have had to fight their way to Manila instead of bypassing enemy strongpoints and letting the rear security handle them. Today unmanned aerial vehicles (UAVs) would be the first option to conduct aerial reconnaissance for ground forces. There is no risk to human life and a UAV is cheaper in cost than a manned platform. It does not get tired and can carry arms if the situation dictates. It is a form of airpower that performs reconnaissance, but its purpose remains the same as the SBDs from the “Flying Columns.”

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Conclusion

Joint Fires plays a major role in LSCO through conducting shaping operations through air interdiction and enabling combined arms maneuver through the airpower. It was no different during the Luzon campaign in 1945. Captain Villanueva ignores the evidence in his essay; his account completely discounts the vital role of air power. To the contrary airpower enables combined arms maneuver. This is an unfortunate tendency from the Joint Fires perspective. How can this be when the evidence overwhelmingly supports this point of view? By presenting only the combined arms maneuver side of the story and not including airpower, Villanueva is presenting an unacceptable precedent for future combat arms (Infantry, Armor, Field Artillery) officers. This will mislead combat officers into believing there is no need for airpower when it comes to the combined arms fight. The "Flying Columns" of General Mudge used airpower to protect their left flank against an enemy whose disposition was unknown. Through aerial route reconnaissance and intelligence gathering airpower allowed the ground forces to rapidly move over 100 miles in 66 hours in a strategically significant mission of rescuing internees at Santo Tomas University and gaining a foothold in the Philippines capital city of Manila. Joint Fire supporters need to ensure airpower is not a forgotten arm of the combined arms fight. Anytime one service that thinks it can win the war by itself needs to reflect on the Luzon campaign and realize that only a joint and combined arms fight will lead to victory. Airpower is a combat multiplier that is an integral part of combined arms maneuver and should not be overlooked.

MacArthur, Nimitz, and Arnold put down their differences and worked through a command structure in the Pacific theater of operations based on cooperation and conducted shaping operations for the better part of four months from October 1944 to January 1945. Although cooperation worked it should not be looked at as the preferred method of command

and control. Shaping operations focused on air interdiction of enemy airfields all over the western Pacific and southeast Asia. These operations destroyed over 1,500 Japanese aircraft, all of which were potential kamikazes, allowing the SWPA forces to have complete air superiority by the 9 January 1945 Luzon invasion date. Air interdiction of Japanese transportation networks limited Japanese movement once the invasion was executed. Japanese rail and daylight road movement was nearly stopped. Joint Fire Supporters of today planning shaping operations for LSCO need to understand how command and control relationships for all joint shaping assets are organized. They need to be organized to enable unity of command and synchronized for convergence. Command and control cannot be taken for granted.

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Notes

[1] Permission was granted to use portions of my paper "Shaping in support of Joint Forcible Entry in Large Scale Combat Operation using the Sixth U.S. Army's Lingayen Gulf Landings as a Case Study" from my Research Advisor, Dr. Kevin Holzimmer, Joint Fires Elective Instructor, COL Shannon Mosakowski, and Chair, Dept. of Research, Air War College, Dr. Elizabeth Woodworth.

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[18] Ibid., 35.

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[20] Ibid., 34.

[21] Ibid., 35-36.

[22] Ibid., 35.

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